

AMENDMENTS TO THE CLAIMS

The listing of claims will replace all prior versions and listings of claims in the application:

Listing of Claims:

1. (Currently Amended) A balloon catheter comprising:

a catheter shaft having a distal end, an inflatable balloon disposed on the distal end, a proximal end coupled to a connecting piece, a guiding wire lumen extending between the proximal and distal ends, and an inflation lumen extending from the connecting piece to the inflatable balloon,

~~wherein~~ the guiding wire lumen being formed from~~comprises~~ a pipe having coupled proximal and distal portions disposed substantially concentrically within the catheter shaft, the inflation lumen being formed between an exterior surface of the pipe and an interior surface of the catheter shaft,

~~wherein~~ the proximal and distal portions ~~are each~~ being made of a solid material, the material of the proximal portion being more rigid than the material of the distal portion, the proximal portion of the pipe including a friction reducing plastic tube disposed within a lumen of the proximal portion,

wherein a transitional portion between the proximal and distal portions of the pipe is provided with kink protection at least partially overlapping and being connected to the proximal and distal portions of the pipe ~~to prevent substantial longitudinal separation between the proximal and distal portions~~, and

wherein the inflation lumen is defined by an annulus between an exterior of the pipe and an interior surface of the catheter shaft.

2.-3. (Canceled).

4. (Previously Presented) The balloon catheter according to claim 1, wherein the proximal portion comprises a metallic material and the distal portion comprises a plastic material.

5. (Previously Presented) The balloon catheter according to claim 1, wherein the transitional portion comprises the abutting ends of the proximal and distal portions.

6. (Previously Presented) The balloon catheter according to claim 1, wherein the kink protection comprises a sleeve.

7. (Previously Presented) The balloon catheter according to claim 1, wherein the kink protection comprises a metal spring.

8. (Previously Presented) The balloon catheter shaft according to claim 7, wherein the metal spring is arranged in the inflation lumen.

9.-12. (Canceled).

13. (Currently Amended) The balloon catheter according to claim 4, wherein the proximal portion is provided with plastic tube has a lubricity-enhancing coating.

14.-20. (Canceled).

21. (Currently Amended) A balloon catheter comprising:

a catheter shaft having a distal end including an inflatable balloon and a proximal end coupled to a connecting piece, the catheter shaft comprising a pipe having proximal and distal portions disposed end to end ~~without overlapping~~, the proximal and distal portions of the pipe being coupled together by a sleeve that at least partially overlaps the proximal and distal portions of the pipe, separate first and second boreholes extending longitudinally within at least a portion of the catheter shaft, a friction reducing plastic tube being disposed within a lumen of the pipe and forming the first borehole,

wherein the first and second boreholes extend from the proximal end to the distal end, the first longitudinal borehole defining a guiding wire lumen and the second longitudinal borehole defining an inflation lumen that provides fluid communication between the connecting piece and the inflatable balloon, the proximal portion comprising a material having a greater rigidity than the distal portion.

22. (Previously Presented) The balloon catheter of claim 21, wherein the proximal portion comprises a metallic material and the distal portion comprises a plastic material.

23. (Currently Amended) The balloon catheter according to claim 21, wherein at least the first borehole in the friction reducing plastic tube has enhanced lubricity~~proximal portion includes a lubricity enhancing coating~~.

24. (Currently Amended) A balloon catheter comprising:

a catheter shaft having a distal end including an inflatable balloon and a proximal end coupled to a connecting piece, the catheter shaft comprising a first proximal pipe and a second distal pipe disposed end to end with the distal end of the proximal pipe abutting the proximal end of the distal pipe, the proximal pipe being coupled to the distal pipe at a transition, the proximal pipe including a friction reducing plastic tube disposed within the first proximal pipe, and a kink protection being disposed about the transition and at least partially overlapping the proximal and distal pipes,

wherein separate first and second boreholes extend longitudinally within at least a portion of the catheter shaft, and

wherein the first borehole defines a guiding wire lumen and the second borehole defines an inflation lumen for connecting the connecting piece to the inflatable balloon, a portion of the first borehole being formed from a lumen of the friction reducing plastic tube.

25. (Previously Presented) The balloon catheter of claim 24, wherein the first pipe comprises a metallic material.

26. (Previously Presented) The balloon catheter according to claim 24, wherein at least the first longitudinal borehole includes a lubricity-enhancing coating.

27. (Currently Amended) The balloon catheter according to claim 1[[3]], wherein the lubricity enhancing coating comprises[[a]]the plastic[[s]] tube is applied to the inner wall of the first pipe proximal portion of the pipe.

28. (Currently Amended) The balloon catheter according to claim 27, wherein the outer surface of the plastic[[s]] tube is modified by plasma treatment or corona treatment for increasing adherence at the inner wall of the first pipe proximal portion of the pipe.

29. (Currently Amended) The balloon catheter according to claim 27, wherein the plastic[[s]] tube is provided with an outer adhesive layer.

30. (Currently Amended) The balloon catheter according to claim 27, wherein the plastic[[s]] tube extends beyond the proximal portion and into at least a portion of the distal portion.

31. (Previously Presented) The balloon catheter according to claim 1, further comprising a nylon tube coating within the transitional portion, the nylon tube coating extending at least partially within the proximal and distal portions.

32. (Canceled).

33. (Previously Presented) The balloon catheter according to claim 24, wherein the kink protection comprises a metal spring.